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Weather Report (1948)

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APPENDIX #1

Weather Report
by
Kent Foster

The Lewiston Daily Sun
October 8, 1948

DROUGHT HITS
FIFTH MONTH;
FARMERS HURT

Record Low Rainfall Marks Broken Last Month at
Four Valley Points - Rumford Worst Hit - Fear
for Next Summer's Grass Crop - Lack
of Rain Cuts Into Crop Harvests

By Kent Foster

Farm crops and water supplies in the Androscoggin River valley are hard-hit by the lack of rain in one of Maine's worst droughts and reports indicate the situation, already in the fifth month, can become critical if the winter freeze-up comes without more rain.

Farmers, faced with empty wells and parched pasturelands, fear a shortage of grass next summer because the soil still is too dry to plough and seed this fall. Androscoggin County's corn crop was 75 % below normal in some sections.

Still Water in Lakes

Rainfall at Rumford, driest spot in the valley, is 77% less than last year for the four-month period and reached a new all-time low in September. Bottom rain records were broken last month at three other points along the Androscoggin River and the fall throughout the valley is under the long-term average.

Ford W. Harris, agent and chief engineer for the Union Water Power Co., which controls water right along the river, said water storage in the Rangeley Lakes at the river's source is only 8% below last year but is 16% under the average for the last 34 years.

He said only release of water from the lakes has kept flow of the Androscoggin River from becoming a mere trickle. Lewiston flow, which averaged 1,776 cubic feet a second last month, would have been only 34 second feet without the addition of water from the supply caught in last spring's rain and stored behind dams in the lakes. Berlin, N. H., would have had only seven second feet for an average.

Even Hay Crop Hit

The drought has hit farmers in their crops and has dropped the output of canning factories in the valley.

Charles L. Eastman, Androscoggin County Agent, said lack of rain caused a loss of from 50% to 75% of the county's corn crop. Heavy invasions by corn borers forced cannors to throw out some of the corn that was harvested.

"Potatoes grown in the county are small because of the dry weather", Eastman reported. "Apples are in about the same condition but there seem to be plenty of them. Some losses were suffered by cucumber growers".

The county agent said many farmers are hauling water to their stock because wells have dried up. "Stock had to be taken into barns earlier this year because the drought and early frosts cleaned out pastures", he declared. "Hay, while there was quite a lot of it, is of very poor quality and means farmers probably will have to feed more grain this Winter".

Wet Spring Would Help

Farmers fear continued lack of rain will cause a heavy drop next summer in pasture grass.

"The soil is too dry now for them to plough and seed grasslands," Eastman explained. "We've had two dry years and grass could get a real good start before Winter or it will get a setback in the Spring.

"A very wet spring with deep snow would be a help after the two droughts. If the snow cover stays on late and protects the grass from freezing and thawing days, we may come through all right."

Statistics compiled by P. W. Bean, UWP Co. river engineer, show Lewiston has had 32.32 inches of precipitation in rain and snow in the last 12 months. This is 26% less than the average of 43.50 inches for the past 73 years. Rumford, with a total of 26.86 inches, is 38% below the long-term average of 38.26 inches. No gain was shown by any point in the Androscoggin valley.

Here is Bean's table comparing the water falling the past year with the average for the years since the company started keeping precipitation records:

YEAR'S PRECIPITATION (In Inches) (For 12 Months Ending Sept. 30)

Location	1947-48	Average of Record	Loss
Lewiston	32.32	43.50	11.18
Rumford	26.86	39.28	12.42
Pontoonook	27.87	38.26	10.39
Errol, N. H.	29.66	38.24	8.58
Aziscohos	29.19	36.79	7.60
Middle Dam	28.54	37.37	8.83
Upper Dam	28.61	33.87	5.26

Drought Started Earlier

Bean said UWP Co. records show dry years come in pairs. These records for Lewiston go back to 1875 and all are for at least 37 years.

Last year's dry months were August, September, and October when the rainfall for the three-months period was only 3.53 inches. The drought created conditions that led to Maine's worst forest fire disaster in years.

This year, rainfall started to fall off in June, two months earlier, in the wake of a wet Spring. This has aggravated the effect on farmers and water supplies in the valley.

Bean's statistics show Rumford, with only 4.90 inches of rain the last four months, has been hardest hit. That community had 14.79 inches in the same four months last year and has a 54-year average of 14.13 inches for the period. This year's total is 77% under last year and 65% under the average since 1894.

Four Records Broken

Rumford's rainfall of 0.33 inches in September broke the all-time record of 0.71 inches for the month, set in 1930. Last year's September total was 1.73 inches in what was also a dry month.

Bottom-of-the-bucket marks also were broken at Pontecook, Aziscohos and Middle dams in the Rangeley lakes. Other points were close to existing records.

Pontecook, with 0.64 inches of rain in September, was well under the all-time low mark of 1.71 set for the month in last year's drought. The fall at Aziscohos was 0.74 compared with the previous dry record of 1.39 set in 1917. Middle Dam had a rainfall of 0.91 inches, the same as Lewiston, to break the 1.70 mark set in 1923.

Lewiston's September rain total of 0.91 still was above the record low of 0.62 set for the month in 1917. August's mark of 2.04 inches was well over the 0.70 for the same month last year but June and July were well under last years figures. Only June was above the 73-year average.

Rainfall Down Everywhere

The four-month total for Lewiston was 8.34 inches, a loss of 44% from last year's figure of 14.75 inches. It also was 39% under the long-term average of 13.71 inches. Figures showed the city had 6.41 inches less rain this year compared to the same period last year.

At Errol, N. H., the rainfall of 7.59 inches for the four months was a drop of 41% from the 12.88 inches received in the same months last year. The total was 49% under the 63-year average of 14.13 inches.

In the Rangeley Lakes area, head-waters for the Androscoggin River, 43% less rain has fallen this year than came down last year. The four-month total of 7.68 inches, computed on four lake stations, is 5.78 inches under last year's 13.46 inches and is 7.63 inches below the long-term average of 15.31 inches. The loss from the average of years of record was 50%.

The following table, using figures kept by the UWP Co., shows the rainfall picture the past four months in comparison with last year and the long-term average:

**FOUR-MONTH RAIN RECORDS
(In Inches)**

Lewiston					
Year	June	July	Aug.	Sept.	Total
1948	3.89	1.50	2.04	0.91	8.34
1947	4.07	5.89	0.70	2.75	14.75
73-yr. Ave.	3.45	3.61	3.07	3.58	13.71
Rumford					
Year	June	July	Aug.	Sept.	Total
1948	1.31	1.24	2.08	0.23	4.96
1947	5.63	6.20	1.23	1.73	14.79
54-yr. Ave.	3.48	3.74	3.32	3.59	14.13
Errol, N. H.					
Year	June	July	Aug.	Sept.	Total
1948	2.48	1.74	2.03	1.34	7.59
1947	4.55	4.77	1.23	2.33	12.88
63-yr. Ave.	3.82	3.87	3.72	3.54	14.95
Azisecchos					
Year	June	July	Aug.	Sept.	Total
1948	1.70	2.67	1.77	0.74	6.88
1947	4.07	4.48	1.42	3.18	13.15
37-yr. Ave.	3.73	3.52	3.52	3.68	14.65
Middle Dam					
Year	June	July	Aug.	Sept.	Total
1948	2.21	3.42	1.72	0.91	8.26
1947	5.29	4.50	1.27	3.16	14.22
43-Yr. Ave	3.67	3.99	3.71	3.85	15.42
Lakes Region (For Four Points)					
Year	June	July	Aug.	Sept.	Total
1948	2.08	2.57	1.86	1.17	7.68
1947	4.74	4.40	1.46	2.86	13.46
Average of Record	3.98	3.92	3.56	3.85	15.31

Dams Keep Up River

Engineer Harris said the lack of rain would have sharply reduced the flow of the Androscoggin River if no dams had been built on it to hold back surplus Spring water for just such dry periods.

He and Bean indicated the water coming into the river from small streams between Lewiston and the lakes was so small that

it was evaporating before it ever reached Lewiston. Most of the water coming down the river the past month has been put into the river from the lakes storage basins.

The river's natural flow, the estimated amount of water if there were no dams on the river or in the lakes, would have been one of the lowest on record.

A comparison of the actual flow and this natural flow is shown in the following table:

RIVER'S ACTUAL FLOW (Cubic Feet Per Second)				
Month	Berlin	Rumford	Liv. Falls	Lew.
June	1744	2672	3429	3932
July	1639	1853	2022	2159
Aug.	1808	1938	1875	2014
Sept.	1749	1754	1771	1776
4-month average	1735	2054	2274	2472

RIVER'S NATURAL FLOW (Cubic Feet Per Second)				
Month	Berlin	Rumford	Liv. Falls	Lew.
July	576	790	959	1096
Aug.	345	475	512	551
Sept.	7	12	29	34
3-month average	309	426	500	560

*June is not shown since there was very little variation between actual flow and the flow without release of water from storage in Rangleley Lakes.